PPIIT Resources of Concern

Department of Fish and Wildlife and Water Boards

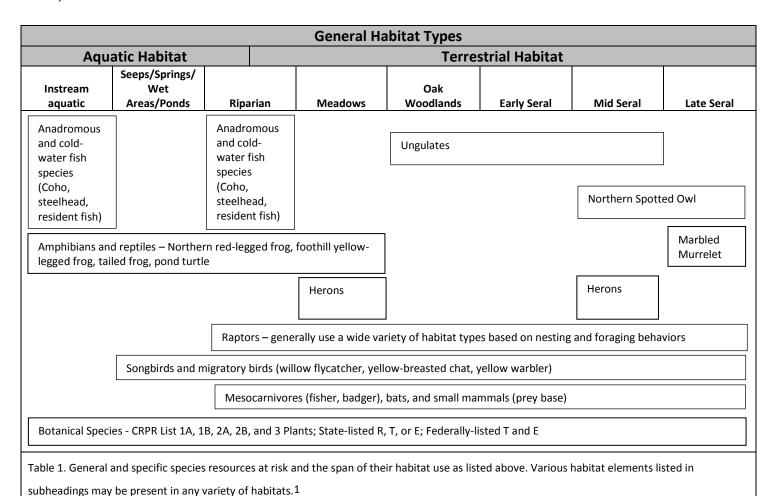
March 28, 2017 DRAFT

Forest species are generally managed based on habitat types and elements and impacts to species are typically characterized by changes in habitat. Generalized habitat types and pertinent key elements are listed below to address resources at risk.

- 1) Terrestrial Wildlife Habitat
 - a) Late-seral forest characteristics
 - i) Multi-storied canopy
 - ii) Pre-dominant trees
 - iii) Large trees, that may include:
 - (1) Epicormic branching
 - (2) Large re-iterative limbs
 - (3) Deformities/broken tops/forked tops
 - (4) Epiphytic growth
 - (5) Complex crowns
 - (6) Decadence
 - (7) Deeply furrowed bark
 - (8) Nests or nesting platforms, nest trees, and screen trees
 - iv) Down woody debris is various states of decay
 - b) Mid-seral
 - c) Early-seral
 - d) Understory Vegetation
 - e) Deciduous trees (willows, alders)
 - f) Meadows and wetlands
 - g) Oak woodlands/Hardwoods
 - i) Individual trees
 - ii) Stands of trees
 - h) Riparian habitat (Also considered as a function of aquatic habitat)
 - i) Deciduous trees (willows, alder)
 - ii) Large trees available for large woody debris recruitment
 - iii) Shade/canopy cover
 - iv) Seral stage
 - i) Elements to be considered in all terrestrial habitats
 - i) Connectivity and wildlife corridors
 - ii) Snags
 - iii) Trees for snag recruitment
 - iv) Nests
 - v) Screen trees
 - vi) Small slash piles
 - vii) Leaf litter

- viii) Proximity to ponds, streams, lakes
- ix) Downed wood
- x) Trees with basal hollows or bole cavities
- xi) Bark crevices
- xii) Proximity to prey base/forage
- 2) Terrestrial Plant Species Habitat
 - a) Dominant plant species for all vegetation layers
 - i) Trees
 - ii) Shrubs
 - iii) Herbaceous
 - b) Seral stage
 - c) Soils
 - i) Origin (i.e., volcanic, serpentine)
 - ii) PH/salinity
 - iii) Texture
 - iv) Nutrient composition and availability
 - d) Shade/canopy cover
 - e) Topography
 - i) Slope
 - ii) Aspect
 - iii) Elevation
 - f) Hydrology
 - g) Water availability
 - h) Humidity
 - i) Ambient air temperature
 - j) Disturbance regime
 - k) Ecological relationships (i.e., parasitic and semi parasitic plants)
- 3) Aquatic Habitat
 - a) Spawning, rearing, and refugia habitat (in-channel, off-channel, estuary)
 - i) Water quality
 - (1) Temperature
 - (2) Suspended sediment concentration
 - (3) Turbidity
 - (4) Dissolved oxygen
 - (5) Conductivity
 - ii) Large wood debris and other shelter present instream
 - iii) Gravel size and embeddedness
 - iv) Pool-Riffle-Glide habitat availability and ratios
 - v) Sinuosity
 - vi) Channel cross-section
 - vii) Gradient
 - viii) Instream migration barriers
 - ix) Geomorphic stream processes
 - b) Wetlands/streams/ponds/seeps/springs

- i) Current and potential hydrologic conditions which maintain aquatic/wet conditions for dependent species
- ii) Presence of aquatic species (plants, invertebrates)
- iii) Substrate type (mud, sand, cobble, boulder, etc.)
- 4) Other aquatic habitat considerations
 - a) Habitat connectivity (present or restorable)
 - i) Streamflow hydrologic period (magnitude, frequency, duration)
 - b) Productivity
 - i) Net nutrient flux
 - ii) Benthic macroinvertebrates
 - c) Natural communities



^{1 1}A-Plants presumed extirpated in CA and either rare or extinct elsewhere ii. 1B-Plants rare, threatened, or endangered in CA and elsewhere iii. 2A-Plants presumed extirpated in CA, but common elsewhere 3. 2B-Plants rare, threatened, or endangered in CA, but more common elsewhere.

³⁻Plants about which more information is needed - a review list.